

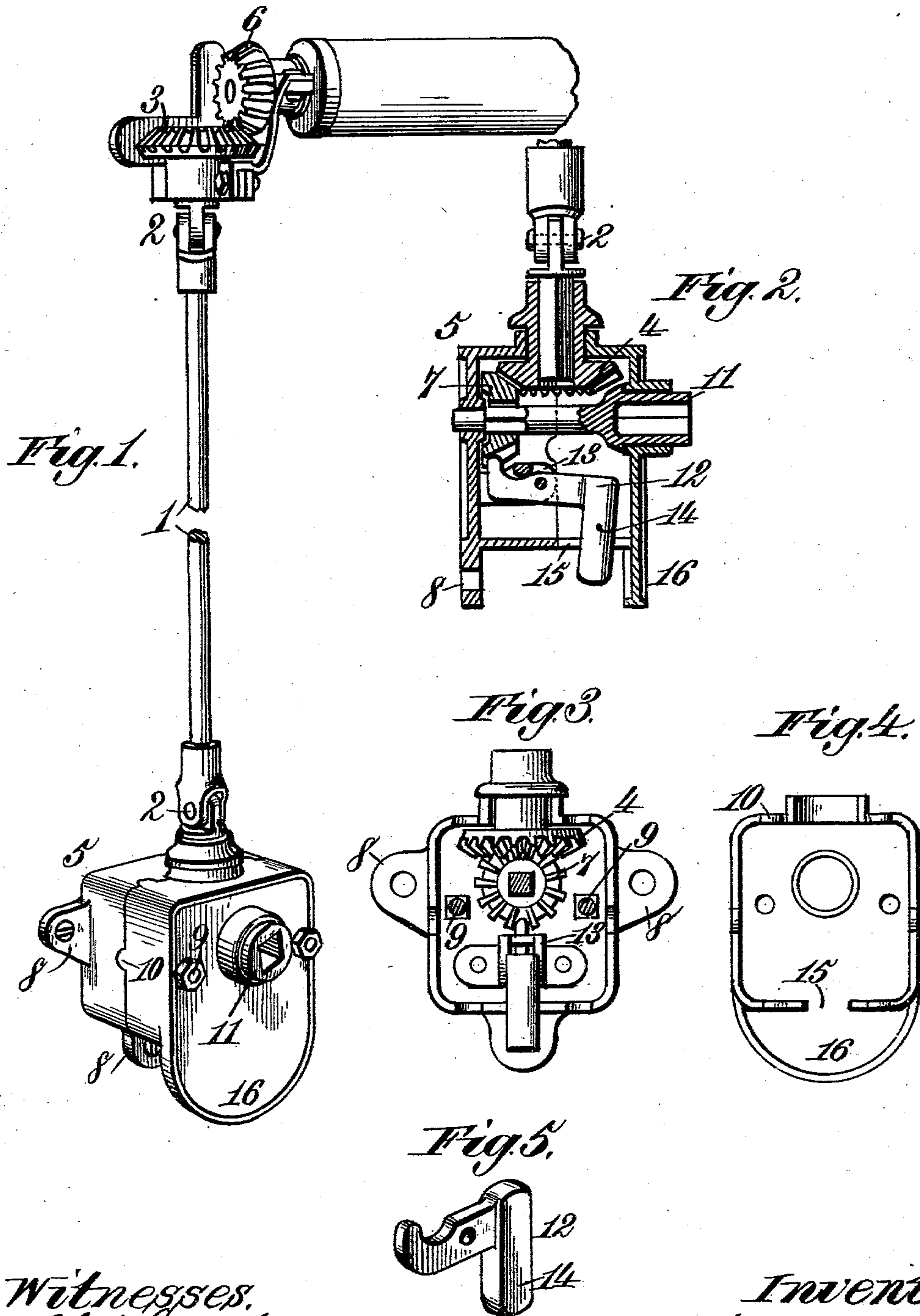
No. 715,463.

Patented Dec. 9, 1902.

L. A. DAUS.
AWNING LOCKING MECHANISM.

(Application filed July 26, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

LOUIS A. DAUS, OF EVANSVILLE, INDIANA.

AWNING-LOCKING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 715,463, dated December 9, 1902.

Application filed July 26, 1902. Serial No. 117,166. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. DAUS, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented new and useful Improvements in Awning-Locking Mechanism, of which the following is a specification.

This invention relates to awning-locking mechanism; and the object of the invention is to provide simple and efficient means of this character which is adapted to firmly hold an awning in a desired adjusted position without possibility of the detent or locking device breaking or the awning falling during its operation and which detent can be easily operated to effect the release of the awning for the purpose of raising or lowering the same. In the present case the detent which holds the awning is operable independently of the actuating means for a gear constituting part of said awning-locking mechanism. Said awning-operating mechanism preferably includes intermeshing gears, which are usually of the bevel kind and which are fixed to shafts extending into a boxing or casing containing said gear, and although I do not show the same a hand-crank is usually employed to operate such mechanism, it being adapted to be removably connected with the shaft of one of the gears outside the boxing or casing, so that by turning the said hand-crank the awning-operating mechanism can be actuated to raise or lower the awning, and in connection with one of the gears I provide a detent which is adapted to engage between the teeth of said gear, so as to hold the same, and consequently the other parts of the mechanism, against action. This detent is operable to release or lock the awning-locking mechanism by an actuating member or arm which is supported independently of the said hand-crank, as it is found in practice that where the detent is controlled by the hand-crank the same is not thoroughly effective, for in raising the awning, for example, should the operator let go of the crank the detent, as it is not of sufficient power to effect the detachment of the hand-crank, cannot fall into its working position, the result being that the awning will drop with a crash. This difficulty is not possible with my improved device, for the rea-

son that the detent, as set forth, operates entirely independently of the hand-crank.

The invention is clearly illustrated in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of the awning-operating mechanism, the boxing for containing the primary gears of which also incloses the locking device. Fig. 2 is a vertical central section of said boxing and inclosed parts. Fig. 3 is a face view of the inner half of said boxing and parts contained therein. Fig. 4 is a similar view of the outer half of the boxing. Fig. 5 is a perspective view of the detent or locking device and its actuating member.

Referring to the drawings, a shaft is shown at 1, it being connected by universal joints 2 of some suitable kind with the upper and lower bevel-gears 3 and 4, the lower bevel-gear being contained within a box or casing, hereinafter more particularly described, and denoted in a general way by 5. The upper bevel-gear 3 is adapted to mesh with a similar bevel-gear 6, secured to one end of a horizontal shaft carrying the usual awning-roller to which the awning is connected. It will be evident, of course, that I do not limit the invention to use in connection with any particular kind of awning. The one shown is of a well-known type to which my improvements are especially well adapted. By virtue of the universal joints 2 it is not essential that the shaft 1 should be set in an absolutely vertical position, for it may be set at a slant without affecting the driving connections between the intermeshing gears and shaft, respectively.

The bevel-gear 4, which, it will be remembered, is inclosed by a boxing 5, is adapted to mesh with a similar bevel-gear 7, also inclosed by said boxing, it being understood that the said gears are rotated about vertical or substantially vertical and horizontal axes, respectively.

The boxing 5 is in two parts, the back part having projecting ears or lugs 8, adapted to be connected by suitable fastening devices with a building or other structure, and said parts are united by bolts 9 or their equivalents, and the outer or forward section or half of the boxing has along its inner edge

projections 10, adapted to fit in correspondingly-shaped seats in the adjacent edge of the inner or rear section of the boxing, so as to center the two parts.

5 It will be evident that the shafts of the two bevel-gears in the boxing extend through the front and top thereof, and the horizontal shaft of the bevel-gear 7 is provided outside the boxing with a fixed hub or sleeve 11, hav-
 10 ing a bore polygonal or square in cross-section and adapted to receive a correspondingly-shaped pin or projection upon a hand-crank (not shown) for turning the said shaft. When said shaft is turned, the intermeshing bevel-
 15 gears 7 and 4 will be operated, so as to rotate the shaft 1, and hence operate the upper intermeshing gears 2 and 6 for the purpose of elevating or lowering the awning in accordance with the direction or movement of the
 20 hand-crank.

In connection with the operating mechanism I provide a detent or locking device, such as 12, which is adapted to engage the bevel-gear 7 for the purpose of holding the awning
 25 in a desired adjusted position, and this detent can be readily disengaged from the cooperating gear, so as to release the same, and consequently the other parts of the awning-operating mechanism. Detent 12 is of the pivoted kind, it being supported at a suitable point
 30 in its length between the parallel horizontal lugs 13 upon the rear half or section of the boxing inside the latter, the working end of the detent being adapted to engage between
 35 two adjacent teeth of the bevel-gear 7. The detent carries at its outer or forward end the depending arm 14, constituting an actuating member for said detent and which is preferably weighted, the weight being of such a
 40 mass as to normally hold the working end of the detent in its effective position. By engaging the lower end of the arm or actuating member 14 with the finger said arm can be swung outward to move the detent out of en-
 45 gagement with the cooperating bevel-gear 7 to thereby release the actuating mechanism, and the hand-crank having been applied to the shaft of said gear 7 the awning can be readily raised or lowered. When the awning
 50 is in the desired position, the finger can be removed from the arm 14, so that the weight of said arm is instantly effective to put the detent into its normal or locking position.

It will be seen that the arm 14 depends
 55 from the detent 12 angularly thereto, and it extends through a slot 15 in the lower half

of the boxing, said slot being conveniently formed in the front or forward half of said boxing. The said forward half of the boxing has a depending extension 16 arranged for-
 60 ward of the depending actuating-arm 14 and which constitutes a guard for said arm. Besides this, it hides the arm from the eyes of maliciously-inclined persons who might be disposed to tamper with the arm, and thereby
 65 release the awning.

It will be evident that the improved device is very simple and can be readily operated, serves to hold the awning firmly in the ad-
 70 justed position without the possibility of the detent being broken or the teeth of the gear cooperating therewith stripped, and as I do not rely upon the hand-crank for controlling the detent, as previously set forth, there is
 75 no possibility of the awning accidentally falling when the operator withdraws his hand from the hand-crank, for the reason that the detent is operable independently of said hand-crank.

Having described the invention, what I
 80 claim is—

1. The combination of a pair of intermeshing gears of an awning-operating mechanism, a pivoted detent for engaging one of the
 85 gears, and an arm depending from the detent and constituting an actuating member therefor.

2. The combination of a pair of intermeshing gears of an awning-operating mechanism, a boxing for inclosing and supporting said
 90 gears, a pivoted detent in the boxing for engaging one of the gears, having a depending actuating member for the detent connected therewith, said boxing being slotted to re-
 95 ceive said actuating member.

3. The combination of a pair of intermeshing gears of an awning-operating mechanism, a boxing for containing the gears, a detent
 100 for engaging one of the gears, pivoted in said boxing, a depending arm connected with the detent for operating the same, and the boxing being slotted to receive said arm, and an extension upon the forward side of the boxing in front of said arm.

In testimony whereof I have hereunto set
 105 my hand in presence of two subscribing witnesses.

LOUIS A. DAUS.

Witnesses:

ALFRED GREENE,
 J. WILL. GLEICHMAN.